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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/553,068

10/12/2005

Andre Fuchs

SE/2-22872/A-PCT

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JoAnn Villamizar
Ciba Corporation/Patent Department
540 White Plains Road
P.O. Box 2005
Tarrytown, NY 10591

EXAMINER

BERMAN, SUSAN W

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

04/04/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/553,068	Applicant(s) FUCHS ET AL.	
	Examiner /Susan W. Berman/	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-13 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>1/06</u> . | 6) <input type="checkbox"/> Other: ____. |

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Claim Objections

Claims 4, 5 and 8-12 are objected to because of the following informalities: Claims 4, 5 and 8-12 recite “according to any one of claims 1”, for example, instead of “according to claim 1”. Claims 5 and 10-12 recite “composition processes a viscosity” instead of “composition possesses a viscosity”. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-5 and 7-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. There is no antecedent in claim 1 for the recitation of water content in claim 3. It is suggested that applicant rewrite line 4 in claim 1 and in claim 2 to recite “formula I or II or solvent-containing crystals of formula Ia or IIa” to clarify what is intended by the word “solvent”.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 1-5 and 7-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Itoh et al (7,037,952) in view of (Felder et al (4,308,400)). Itoh et al disclose UV curable ink composition for preparing ink jet printed matter. The ink comprises coloring component, reactive oligomer or prepolymer, reactive diluent and a photoinitiator and is applied to a recording medium and cured by exposure to UV rays. The photoinitiators taught include hydroxyl phenyl ketones. Itoh et al teach that the viscosity of the ink should be from 5 to 80 cps, preferably from 8 to 40 cps (column 8, lines 50-54).

Felder et al disclose aromatic-aliphatic ketones of formula I wherein Ar can be diphenyl methane, X can be -OH, and R¹ and R² can be methyl groups. See column 2, lines 27-56 and column 3, line 8. Specific compounds, including 4,4'-bis-(α -hydroxy-isobutyryl)diphenyl methane, are taught in column 8, lines 1-9. A Friedel-Crafts method for preparation is taught in column 11, lines 12-30. Chlorination is taught in column 13, Method A. Hydrolysis is taught in column 15, Method F. Felder et al do not mention the water content of the crystalline aromatic ketones produced. However, since the method steps for preparation taught by Felder et al correspond to the method steps disclosed by applicant, the products would be expected to be the same. Felder et al teach that the aromatic aliphatic ketones effect rapid photopolymerization and photocrosslinking and teach that the photopolymerizable systems can contain dyes and fillers. See columns 11-12. Use for preparing printing inks and printing plates is taught in column 13, lines 6-18.

It would have been obvious to one skilled in the art at the time of the invention to employ one of the photoinitiators disclosed by Felder et al in the ink jet ink compositions and process of applying to a recording medium and curing taught by Itoh et al. Itoh et al provide motivation by

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teaching that hydroxyl phenyl ketones are suitable photoinitiators for the disclosed compositions. Felder et al provides motivation to apply the composition as an ink to a recording medium by teaching that the composition can be used as printing inks. It would further have been obvious to one skilled in the art at the time of the invention to prepare a composition comprising an aromatic-aliphatic ketone of formula I wherein Ar is diphenyl methane as the aromatic-aliphatic ketone disclosed by Felder et al. One skilled in the art at the time of the invention would have been motivated by a reasonable expectation of providing a rapidly photocuring printing ink to the recording medium. With respect to claims 5, 10, 11 and 12, It would have been obvious to one skilled in the art at the time of the invention to adjust the viscosity of the composition to a viscosity for ink jet printing because the viscosity range required for ink jet printing is taught by Itoh et al.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

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Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-5 and 7-13 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-11 of U.S. Patent No. 7084183 in view of Itoh et al. Although the conflicting claims are not identical, they are not patentably distinct from each other for the following reasons. The disclosure of Itoh et al is set forth above. The claims of US '183 set forth the same formulas Ia and IIa wherein water is the solvent as are set forth in the instant claims. Claim 5 of US '183 recites a process comprising preparing the composition of claim 4, applying the composition to a support and curing the formulation by irradiation. Claim 1 recites a mixture of compounds of formula Ia and IIa wherein water is the solvent. It would have been obvious to one skilled in the art at the time of the invention to provide a "system" comprising only one of the compounds set forth in claim 1 of US '183 since both compounds function as photoinitiators and would have been expected to effectively initiate photopolymerization of the photopolymerizable system. It would have been obvious to one skilled in the art at the time of the invention to apply the composition of US '183 comprising a colorant as additive to a recording medium as the substrate before curing by irradiation, as taught by Itoh et al. It would further have been obvious to one skilled in the art at the time of the invention to adjust the viscosity of the composition to an ink jettable printing viscosity, as taught by Itoh et al.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to /Susan W. Berman/ whose telephone number is 571 272 1067. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571 272 1078. The fax phone number for the organization where this application or proceeding is assigned is 571 273 8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SB
3/27/2008

/Susan W Berman/
Primary Examiner
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